NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
LYNDON B. JOHNSON SPACE CENTER
HOUSTON, TEXAS 77058

REPLY TO ATTN OF: JN5-73231

Nov. 12 1973

TO: NASA Headquarters
Attn: BX/Director of Facilities

FROM: JA/Director of Center Operations

SUBJECT: Environmental Impact Assessments

Attached are copies of environmental impact assessments for institutional functions and projects in support of the Space Shuttle program as follows:

Institutional Assessment

Facilities and Functions at the NASA Industrial Plant, Downey, California.

Assessments of Projects at Downey Industrial Plant

1. Modifications and Rehabilitation of the Chemical Processing Area, Buildings 244 and 277.

2. Replacement of Three Paint Booths, Shelter 701.

3. Modification and Rehabilitation of the Water Conditioning Plant south of Building 061.

4. Modifications and Rehabilitation of the Baking Oven and Spray Booth Exhaust System, Building 287.

5. Modifications and Rehabilitation of the Paint Spray Booth, Building 41.

6. Modification and Rehabilitation of the Neutralization and Liquid Waste Disposal System.

Assessments of Projects at Johnson Space Center (JSC)

1. Modifications of the Vibration and Acoustics Test Facility, Building 49 (FY 73 Construction of Facilities Project).

2. Upgrade of the Vibration and Acoustics Test Facility, Building 49 (FY 75 Construction of Facilities Project).

3. Permanent Facilities for Pretreatment of Blowdown Wastewater at Building 24.

4. Supply Main and Appurtenances for Treated Surface Water Supply for JSC.

Each of these assessments indicates that there will be no significant adverse environmental impact from the subject activity. It is, therefore, concluded that the formal publication of these assessments is not required under the provisions of the National Environmental Policy Act. Please note that the four assessments for projects at JSC come within the umbrella of the institutional environmental impact statement for the Center which was published in 1971. Future projects and actions will be reviewed for environmental effects, and additional impact assessments will be prepared for those activities which have potential effect on the quality of the environment.

These assessments are furnished pursuant to instructions contained in the draft of NMI 8800.7C, dated October 2, 1973, entitled "Guidelines for Conducting Assessments and Preparing Environmental Impact Statements as Required by the National Environmental Policy Act of 1969." Your review and concurrence in the assessments are requested.

Joseph V. Piland

Enclosures

cc:
NASA Hqs., PA/N. B. Cohen
MR/M. K. Wible

bcc:
JN54/W. Kutalek
MA/A. Cohen

JN52:GWSpencer:jp:10/31/73:2733

ASSESSMENT OF ENVIRONMENTAL IMPACT

for

MODIFICATIONS AND REHABILITATION OF THE CHEMICAL PROCESSING AREAS

Buildings 244 and 277

Downey Industrial Plant

of the

National Aeronautics and Space Administration

Downey, California

June 1973

Foreword:

The following environmental impact assessment for the titled project is provided in accordance with the National Environmental Policy Act of 1969, Executive Order 11514 dated March 5, 1970, NASA Management Instruction 8800.7B, and Guidelines of the Council on Environmental Quality as published in the Federal Register, Volume 36, Number 79, dated April 23, 1971.

This assessment indicates that there will be no significant adverse impact on the environment, nor irreversible or irretrievable commitment of resources, from the title project. It is, therefore, concluded that the formal publication of this assessment is not required under the provisions of the National Environmental Policy Act.

I. Description of Proposed Action

This project will provide for the re-establishment of a chemical processing function within buildings 244 and 277 for the processing of small sheet metal parts. The project will include the installation of forty-eight (48) small tanks approximately 4'0" to 4'6" long, 3'0" wide, and 3'6" deep, and two vapor degreasers similarly sized in building 277. Plumbing will be installed to collect contaminated rinse water and chemical wastes and deliver them to treatment stations in the water conditioning facility. Within the treatment station, the liquid wastes will be conditioned to meet the requirements of the Sanitation Districts of Los Angeles County prior to dumping into the sanitary sewer. Approximately six (6) tanks may contain solutions requiring special handling. When the solutions in these tanks are spent, they will be drained into existing collecting sumps and either pumped to the water conditioning facility for processing or be hauled away by a licensed hauler to a state-approved dump site. The toxic fumes and vapors emitted from various tanks will be collected in a hood, duct, and rim exhaust system and scrubbed to within

the limitations of the Air Pollution Control District, County of Los Angeles, prior to emission to the atmosphere.

II. Probable Impact of Proposed Action on the Environment

The installation of the processing tanks within this project will increase the amount of vapors generated by the hot chemical baths. The toxic fumes and vapors emitted from the various tanks will be collected in a hood and duct system and passed through fume scrubbers. It is mandatory that vapors passing through these scrubbers be within acceptable limits of the Air Pollution Control District of the County of Los Angeles. The existing scrubbers will be rehabilitated or replaced.

The waste chemicals from the tanks will be discharged to the sanitary sewer after first having been treated to acceptable limits, or will be hauled away by a licensed hauler. The methods used to dispose of the waste chemicals and toxic fumes are within the framework of the regulations established by the responsible Los Angeles County agencies. There is no apparent potential for occupational health hazards or other danger to life systems from this proposed project.

III. Probable Adverse Environmental Effects

There are no known, probable adverse environmental effects from this project, provided the chemical wastes are treated prior to dumping in the sanitary sewer or are hauled away by a licensed hauler; and provided the toxic fumes are collected and scrubbed prior to release to the atmosphere. The methods used to treat waste chemicals and toxic fumes are acceptable to the responsible Los Angeles County regulatory agencies.

IV. Alternatives to the Proposed Action

The re-establishment of a chemical processing function, as in this project, is essential to the Space Shuttle program. Approximately 90 percent of the Shuttle fabricated parts which are four feet in length or less are to be processed in this area. There is no alternative to having a chemical processing area, but it might be located elsewhere within the Downey complex. The choice of location is based on the proximity of manufacturing operations supported, location of utilities and sewer, and the fact that the buildings (areas) have been used for this function in the past and are ideally suited for a processing function.

The only alternative to neutralizing and subsequent disposal of the chemical wastes, acceptable to the regulatory agency, is to collect them in holding tanks and then have the chemical wastes hauled away by a State of California licensed hauler to state-licensed dump sites. This project will utilize one or both of the approved disposal methods. There are several alternatives for handling the toxic fumes, such as scrubbers and/or filters. The method chosen (scrubbers) is considered best because of the cleansing capability and reduced maintenance requirement.

V. Relationship of Local Short Term and Long Term Effects

This project will provide the necessary chemical processing functions required to support the metal cleaning of small parts involved in the Shuttle program. There will be a relatively small local effect from this project in the generation of chemical wastes and toxic fumes. To prevent water pollution, the generated chemical wastes will require treatment prior to their disposal to the sanitary sewer, or will be removed to a state-licensed dump site. The toxic fumes generated will require collection and scrubbing prior to their release to the atmosphere.

Both the local short term and the long term effects appear to offer advantages which far outweigh any potential environmental disadvantages.

VI. Irreversible and Irretrievable Committments of Resources from the Proposed Action

There are no known irreversible or irretrievable commitment of resources in the proposed action. Neither the project facilities nor disposal of waste generated by this project appear to irreversibly affect the use of land or other resources.

DOWNEY COMPLEX

NASA INDUSTRIAL PLANT
Downey, California
June, 1973